<u>P</u>roject <u>M</u>anagement <u>O</u>ffice

Conceptual Approach

Travel & Expenses
Management System

January 30, 2006

Revision 1.3

Office of Financial Management

Table of Contents

Revision History

Revision	Date	Author	Description of change
1.0	12/23/05	Glen	First Draft
1.1	1/9/06	Glen	Added TEMS Recommendations and reorganized content.
1.2	1/13/06	Kent	Added Conceptual Design
1.3	1/30/06	Glen	Couple modifications after discussion with Sadie & Allen

1. TEMS Recommendations Summary:

This document contains the recommendations and analyses the Travel & Expense Management System (TEMS) Project Team made regarding the Roadmap recommendations.

The Recommendations:

1. *The TEMS design will support the Roadmap recommendations by including these considerations: the concept of "trip", configurable traveler/agency profiles, and a configurable business rules-based engine.*
2. *Proceed with the TEMS Project along the current timeline. Do not wait for further work on the Roadmap.*
3. *Identify the owners, governance structure, and processes for enabling and implementing the Roadmap recommendations.*
4. *OFM Statewide Financial System and Statewide Accounting staff meet to identify any easy-to-enable Roadmap recommendations.*
5. *The Roadmap recommendations fall into several groupings. Consider these groupings together. TEMS will specifically address each grouping within its approach and design.*

The "TEMS Recommendations & Rationale" section below describes each TEMS recommendation in more detail with support rationale.

2. Introduction

Purpose

The Conceptual Approach describes the things the Travel & Expense Management System Project (TEMS) needs to consider during implementation related to the Roadmap recommendations. It will provide value for several stakeholder groups:

For the TEMS Team:
- Guidance during design and implementation.
- An idea of the impact the Roadmap recommendations will have on the TEMS application as the recommendations are enabled.
- A set of issues and risks that need to be addressed during the TEMS implementation.
- A base to start implementing Roadmap recommendations as they are enabled.

For the Roadmap Team:
- Lessons learned and insights about how the recommendations need to be packaged and managed.
- An understanding about how implementation teams will view their recommendations.

For OFM management:
- An assessment about how implementation teams will work with the Roadmap team recommendations and the issues that will arise.

- Insights around managing the changes to applications and business processes coming out of the Roadmap recommendations.

Background

One of the objectives in the TEMS Project Charter is to consider recommendations, requirements, best practices, and enterprise solutions coming from the Roadmap Modeling Project.

The Roadmap Modeling Project Team recommends substantial changes to the current travel & expense management processes. Some changes will require significant changes to policy, and perhaps new legislation. Some of these changes require efforts to interface with systems owned by other agencies and to create partnerships with private sector service providers. Employee bargaining units may be concerned with some proposed changes. All the changes require identifying and working with the customer base and stakeholders.

The requirements the TEMS team has developed are for the State's "As Is" travel & expense management processes. If we were to implement a solution for these requirements without regard to the sweeping Roadmap recommendations, we will need to do significant rework.

Therefore, we have included this Conceptual Approach as a deliverable in TEMS Feasibility Phase. The approach should include a vision for addressing the Roadmap recommendations in terms of enablers, risk, issues, assumptions, components, sequencing, and rework required to merge with the core TEMS application. Appendix A shows a graphic representation of the Conceptual Approach.

3. Roadmap Recommendations For TEMS

The source of these recommendations is the Eclipse Solutions report titled: "Enterprise Business Process and Data Modeling for the Roadmap for Financial and Administrative Policies, Processes, Systems and Data". The report is subtitled: "Expense Reimbursement Value Proposition – DRAFT, Version 0.9", dated November 15, 2005.

Recommendations 1 – 9 were derived from Paragraph 6.4, recommendations 10 - 15 were derived from Paragraph 6.2, and recommendation 16 was derived from Paragraph 6.5 of the above document. Recommendation 17 came from a meeting with the Roadmap Team on December 14, 2005.

As noted, each Roadmap Recommendation requires some enabling before the TEMS Team can incorporate them into the application. The TEMS Team indicated what enabling activities would be required for each of the Roadmap Recommendations. The TEMS Team built an Enablers Matrix (Appendix B), showing the enablers required before each of the Roadmap recommendations can be implemented.

The TEMS Team originally considered filling in more detail about the nature of the enablement. However, we decided that work was outside the scope of the Conceptual Approach. One of our recommendations is that there should to be a governance structure around the Roadmap recommendations. There should be a champion of the Roadmap recommendations that is responsible for managing and completing the enabling activities.

We think this matrix is a good tool to help manage the enabling activities.

Rec01: Establish travel and expense reimbursement "best practice" business policies and processes at state level.
> *Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders, labor relations.*

Rec02: Require use of central bill individual charge cards for most travel-related expenses, including but not limited to lodging, rental automobiles, and other miscellaneous expenses except meals.
> *Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (GA, AG, SAO), labor relations.*

Rec03: Eliminate advances to employees.
> *Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (GA, AG, SAO), labor relations.*

Rec04: Offer employees the option of also carrying individual bill charge cards for meal costs.
> *Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (GA, AG, SAO), labor relations.*

Rec05: Select expense reimbursement vouchers for management approval based on business rules.
> *Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (AG, SAO, DIS), labor relations.*

Rec06: Require receipts only where required by Federal tax laws, file receipts at decentralized locations, and standardize receipt requirements across agencies.

Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (AG, SAO, Federal government), labor relations.

Rec07: Limit approvals needed to three levels.
Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (AG, SAO), labor relations.

Rec08: Reimburse meals on first and last days of travel at a standard, flat 75% of per diem rate per IRS rules.
Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (AG, SAO, Federal government), labor relations.

Rec09: To be eligible for meal reimbursement the traveler must be in an overnight travel status. [this recommendation eliminates the current 3-hour rule]
Enablers: OFM Accounting Division, RCW changes, policy changes, stakeholders (AG, SAO), labor relations.

Rec10: Streamline existing processes.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), labor relations, RCW changes, policy changes.

Rec11: Implement a centralized expense management solution with automated trip planning and reimbursement.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), labor relations, RCW changes, policy changes.

Rec12: Mandate the use of state credit cards for miscellaneous travel and other expenses.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), labor relations, RCW changes, policy changes.

Rec13: Mandate the use of contracted vendors, where possible.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), labor relations, RCW changes, policy changes.

Rec14: Analyze data to improve supplier management and purchasing power.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), RCW changes, policy changes.

Rec15: Improve service delivery based on data analysis.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), RCW changes, policy changes.

Rec16: Enterprise data standards proposals.
Enablers: OFM Accounting Division, Stakeholders (GA, AG, SAO, DIS, private sector), RCW changes, policy changes.

Rec17: Implement a travel profile.
Enablers: OFM Accounting Division, Policy changes, stakeholders (AG, SAO, DIS), labor relations.

4. TEMS Recommendations & Rationale:

The objectives for the TEMS Project, as laid out in the June 2004 Business Case, were to:
- Extend current functionality to pre-approvals, all reimbursable expenses, better reporting, and other improvements;
- Re-architect the product to improve ease of deployment and performance;
- Make the product accessible for users with disabilities.

The September 2005 Project Charter expanded the objectives to specifically reference giving consideration for the recommendations coming from Roadmap Project.

In November 2005, the Roadmap Project provided recommendations and a "could be" model for best practices around travel and expense management.

This Conceptual Approach is a result of the TEMS Team's analysis of the Roadmap recommendations and subsequent conclusions. The TEMS Team makes five recommendations for TEMS implementation with consideration for the Roadmap recommendations.

TEMS Recommendation #1: Include the following considerations in the TEMS design to support the Roadmap recommendations:
- Support the concept of "trip" in the data model and user interface design.
- Design configurable traveler/agency profiles that will support business rules around spending authority and other possible new requirements.
- Design a configurable business rules-based engine rather than hard-coded business rules within the application.

TEMS Recommendation #2: Proceed with the TEMS Project along the current timeline. Do not wait for the Roadmap Team to complete

the work necessary to enable the Roadmap recommendations. The rationales for this recommendation are the following:

- The original TEMS objectives are still drivers and their urgency increases with time.
- The enabling of the Roadmap recommendations will probably happen over a period of years and will not happen all at once. Laying out the overall enterprise approach to the Roadmap recommendations is scheduled for a FY07 Feasibility Project.
- OFM has made commitments to current Travel Voucher System customers to improve functionality, the application deployment and upgrade process, and accessibility for disabled users in a timely fashion.
- The TEMS Team needs specific requirements as they begin the design phase of an implementation project. All the Roadmap recommendations need enablers in place (e.g., new policies, labor relations discussions, business process change) before the Roadmap Team or the TEMS Team can identify specific system requirements.

Appendix C is a graphic showing how the Roadmap Enabling and the TEMS Project operate in parallel, with the results of the Roadmap Enabling creating requirements that feed into TEMS requirements specification and design.

TEMS Recommendation #3: OFM needs to establish owner(s) for the Roadmap recommendations, a governance structure around implementing the recommendations, and the processes for working with the various stakeholders (e.g., policy owners, legislative staff, labor relations, vendors, other state agencies that support enterprise applications) to enable the recommendations.

- The TEMS Team is an application development and implementation team, not a team that manages policy or initiates legislation.
- Some members of the TEMS Team, particularly the product managers, need to be involved with the Roadmap enabling process because they are experts in the business area.

Appendix D is a graphic representation of how the Roadmap recommendations owner would interact with the various enabling stakeholders and the TEMS Team.

TEMS Recommendation #4: OFM Statewide Financial System and Statewide Accounting staff should meet together soon to identify

the Roadmap recommendations that can be easily enabled through minor policy or business process changes.

- This is an immediate action that can take place before TEMS Recommendation #3.
- There may be some best practices that the TEMS Project can incorporate into their initial implementation.
- Pay special attention to the Roadmap recommendations around using business rules to determine whether approvals are always needed and around using 75% of the meals per diem for the first and last days of travel.

TEMS Recommendation #5: The Roadmap recommendations for travel & expense management fall into several groupings. The Roadmap enabling process should make sure recommendations within each grouping are considered together. The TEMS Project conceptual approach addresses each grouping:

1. *Grouping 1 - Principles*
   - *Roadmap Recommendation 01:* Establish travel and expense reimbursement "best practices" business policies and processes at state level.
   - *Roadmap Recommendation 10:* Streamline existing processes.
   - *Roadmap Recommendation 16:* Enterprise data standards.

   Δ *TEMS approach to Grouping 1:* The TEMS Team considered these Roadmap recommendations as principles that apply throughout the TEMS Project. For example, during requirements review work sessions with the User Group, we always stressed doing things in common unless a business case for differences existed. The User Group fully supported the enterprise approach and worked hard to reach agreement where they could. Out of almost 200 requirements, there were only 8 that the User Group felt that agency differences required different approaches.

2. *Grouping 2 – Approvals & Workflow Based on Business Rules*
   - *Roadmap Recommendation 05:* Select expense reimbursement vouchers for management approval based on business rules.
   - *Roadmap Recommendation 07:* Limit approvals needed to three levels.

- *Roadmap Recommendation 17:* Implement a travel profile.

Δ *TEMS approach to Grouping 2:* A configurable traveler/agency profile and a configurable business rules-based engine will support this grouping. There is cost associated with designing and developing the profile and rules-based engine. However, it should be easier to react to changing requirements with the profile/engine approach than to change hard-coded programs.

Δ Recommendations 05 and 07 should "go live" at the same time because they are part of the same process. The system will determine whether the voucher needs approval and then can automatically limit the approval steps. From a technology view, the team will be working on the same part of the application to implement both these recommendations. From a business view, these recommendations are part of the same process and the discussion can be focused on this entire process once rather than having to come back and discuss another part later.

Δ The Software Requirements Specification (SRS) for the TEMS Core already referenced a travel profile. As we analyzed all the Roadmap recommendations, the only impact on the profile component that we did not already reference in the SRS was related to basing approvals on business rules.

3. ***Grouping 3 – Receipts***
   - *Roadmap Recommendation 06:* Require receipts only where required by Federal tax laws, file receipts at decentralized locations, and standardize receipt requirements across agencies.

   Δ *TEMS approach to Grouping 3:* Use the rule-based engine to determine what line items require receipts. The recommendation does not direct the application to store the receipts electronically.

4. ***Grouping 4 – Meal Reimbursement***
   - *Roadmap Recommendation 08:* Reimburse meals on first and last days of travel at a standard, flat 75% of per diem rate per IRS rules.

- *Roadmap Recommendation 09:* To be eligible for meal reimbursement the traveler must be in an overnight travel status.

Δ   *TEMS approach to Grouping 4:* These recommendations should "go live" at the same time. Without one, the other recommendation would not be as effective. TEMS needs to support the concept of "trip" in the data model and user interface design. This will allow the application to automatically identify the first and last days the traveler is in "travel" status. The rules-based engine will run the 75% of per diem based on location.

5. ***Grouping 5 – Business Intelligence***
    - *Roadmap Recommendation 13:* Mandate the use of contracted vendors, where possible.
    - *Roadmap Recommendation 14:* Analyze data to improve supplier management and purchasing power.
    - *Roadmap Recommendation 15:* Improve service delivery based on data analysis.

Δ   *TEMS approach to Grouping 5:* These recommendations should "go live" at the same time. They tie in because they are parts of the entire enterprise data capturing, reporting, and analysis approach to travel & expense management. TEMS, as currently scoped, is a reimbursement system, not a purchasing system or business intelligence system. This grouping will require partnership(s) with General Administration for purchasing functions and OFM's Enterprise Reporting group for data mining and analysis. This will require a major project.

6. ***Grouping 6 – Credit Cards***
    - *Roadmap Recommendation 02:* Require use of central bill individual charge cards for most travel-related expenses, including but not limited to lodging, rental automobiles, and other miscellaneous expenses except meals.
    - *Roadmap Recommendation 04:* Offer employees the option of also carrying individual bill charge cards for meal costs.
    - *Roadmap Recommendation 12:* Mandate the use of state credit cards for miscellaneous travel and other expenses.

Δ   *TEMS approach to Grouping 6:* Using credit card to the recommended extent probably requires substantial work to enable and form partnerships. It is too early to identify any requirements or implementation details beyond the capabilities already defined for the core TEMS.

7. ***Grouping 7 – Advances***
   * *Roadmap Recommendation 03:* Eliminate advances to employees.

   Δ   *TEMS approach to Grouping 7:* This recommendation is highly dependent on Grouping 6 – Credit Cards. TEMS needs to support advances for the time, as they are part of the current business functionality. However, the TEMS "advances" functionality needs to be kept as simple as possible and modularized for later removal.

8. ***Grouping 8 – Centralized Expense Management & Trip Planning***
   * *Roadmap Recommendation 11:* Implement a centralized expense management solution with automated trip planning and reimbursement.

   Δ   *TEMS approach to Grouping 8:* The TEMS' Project's main objective is to implement a centralized expense management solution.   Support the concept of "trip" in the data model and user interface design*.*

TEMS Next Steps:
* Based on the above recommendations, the TEMS Project will continue the Feasibility Study.
* The alternatives analysis will incorporate evaluation criteria that support the concept of "trip", configurable profiles, and a configurable rules-based engine.
* Any additional requirements coming out of the efforts to enable the Roadmap recommendations will be incorporated in the TEMS Software Requirements Specification for the initial release or subsequent releases, depending on timing.
* The TEMS Team will refer to the materials in this Conceptual Approach when incorporating new requirements from the Roadmap. These materials will provide the TEMS Team with issues, risks, ideas, and situation analyses that will lead into the design phase.

5. Suggestions Regarding Roadmap Recommendations

These are highlights of the things we learned, experienced and concluded as we analyzed the Roadmap recommendations and their impact on the Travel & Expense Management System Project:

5.1: As noted in TEMS Recommendation #3, implementing the Roadmap recommendations requires a clear governance structure:
- There needs to be executive sponsorship and support.
- The Roadmap team need staff support to track progress, log issues, and plan enabling activities around the recommendations.
- The Roadmap team needs liaisons to the implementation teams to make sure the Roadmap visions remain clear.
- The Roadmap needs champions to lead the enabling and business process change efforts.

5.2: The Roadmap recommendations are not prioritized. We did receive a one-page summary that included five recommendations – two were very general and three were quite specific.

5.3: Do all the Roadmap recommendations have the same likelihood of happening? The recommendations should come with the obstacles, enablers, and priorities identified, as well as the likelihood of adoption. This would help process owners and implementation teams focus their efforts.

5.4: The TEMS Team pulled a set of 16 recommendations from the Roadmap document describing travel & expense management. The Roadmap Team identified one more recommendation and expanded on a couple others when we met with them. The recommendations from the Roadmap should be in a consistent format and all listed together in the Roadmap document. They should be uniquely numbered for cross-referencing. The unique number should never change. The recommendations should be finalized before presentation to an implementation team and should follow a change management process once they are finalized.

5.5: Some of the Roadmap recommendations were not specific enough for our implementation team. For example, "establish travel and expense reimbursement 'best practice' business policies and processes at state level" needs to be more specific for the implementation team to take any direct action. This is something we did during our work with the User Group, where we stressed the need to find as much commonality in the travel process as possible. It is more an operating principle than a specific recommendation.

5.6: When we had meetings with the Roadmap Team members we found we had different interpretation of some of the requirements. For example, a Roadmap recommendation referred to a "travel profile". The TEMS Team focused on a user profile and the Roadmap team had a vision of a travel profile.

5.7: Ray DeFant is working with JPMorgan-Chase to get credit card records directly interfaced into AFRS. Several Roadmap recommendations focus on using credit cards. The Roadmap Team needs to be aware of current SWFS activities and vice-versa.

5.8: Some members of the TEMS User Group were in the Roadmap Focus Group, some were not. When we presented the Roadmap recommendations to the User Group, some members were concerned because they were not involved in the Roadmap. There were different levels of understanding, creating issues for the "esprit de corps" we had built with our TEMS group.

5.9: The solutions to many of the recommendations involve partnerships with other agencies (e.g., GA for leveraging purchases from vendors). Who will ensure the partnerships between the agencies are established and maintained?

5.10: The TEMS Team quickly found a lot of issues and questions with the Roadmap recommendations during the assessment and analysis work. For example, the recommendation to approve only a statistical sample of travel vouchers could lead to many exceptions. If too many exceptions are allowed during the enabling process, the cost of implementing and supporting the exceptions may erode the recommendation's value proposition.

5.11: The current Roadmap Team does not have a lot of time to work the implementation teams. Some members of the TEMS Team felt the Roadmap Team should include people to work with the implementation teams to make sure they maintain the enterprise vision. Other TEMS members thought the Roadmap should not work with the implementation team at all. The relationship between the Roadmap Team and implementation teams needs to be clear as the Roadmap activity evolves.

6. TEMS Conceptual Design and Future ROADMAP Impacts

The TEMS conceptual design consists of four main parts: TEMS Core Functions, TEMS Core Interfaces, TEMS Future Functions and ROADMAP Proposed Functions and Interfaces. The following context diagram gives a pictorial representation of each of these parts and their

primary components. The following written details contain a brief description of the components in each part and the possible impacts on each part by ROADMAP recommendations. The context diagram and written details represent the TEMS team's approach to proactively addressing the ROADMAP impacts on TEMS.

ROADMAP Proposed Functions and Interfaces

Process credit cards (function and interface)

Process and manage travel booking (interface)

Process and manage receipting (function implemented via rules and procedures)

Credit card transaction data

Travel/Itinerary data

TEMS Core Functions

Administrative Functions

Process business rules

Manage agency business rules and system policies

TEMS Future Functions

Process pre-payment/advance request (component)

Process pre-approval/pre-authorization request

Process workflow

Manage agency workflow

Pre-payment request data

Process reimbursement request

Process fiscal data

Manage agency user profiles

Process payment approval

Reporting/ querying

Manage account coding information

System help

Manage system and agency broadcast messages

User profile data

TEMS Core Interfaces

Reimbursement data

Taxable reimbursement data

Reimbursement data (for archival)

State and agency accounting systems

State and agency HRMS

Agency storage and/or imaging systems

NOTE: ROADMAP recommendations Rec01, Rec10 and Rec16 (denoted as "Principles") have potential impacts across all TEMS functions and interfaces in the following ways:

Rec01 – May have impact if "best practices" differ from implemented policies and processes.
Rec10 – May have impact if "streamlined" processes differ from implemented processes.
Rec16 – May have impact if "enterprise" data standards differ from implemented data standards.

TEMS Core Functions

Process pre-approval/pre-authorization requests

Description:
TEMS will provide the ability to create a pre-approval/pre-authorization reimbursement request. The system will validate meal, lodging and mileage rates. The system will provide point-to-point mileage distances with the ability to override. The request will be routed for approval based on configurable routing rules.

ROADMAP recommendation impacts:
Rec08 – May have impact by removing the use of per diem.
Rec09 – May have impact by requiring additional information and business rules needed to determine if in overnight status.
Rec14, Rec15, Rec17 – May have impact by requiring additional data entry.

Process reimbursement request

Description:
TEMS will provide the ability to create a reimbursement request for any reimbursable employee item. The system will validate reimbursement rates and amounts and enforce system and agency business rules. The system will display pre-approval information related to the reimbursement if it exists. The request will be routed for approval based on configurable routing rules.

ROADMAP recommendation impacts:
Rec02, Rec12 – May have impact by requiring additional process to reconcile credit card charges with items on reimbursement request and by additional business rules necessary to validate credit card charges.

Rec03, Rec04 – May have impact by eliminating the need for a pre-payment/advance request and the process of reconciling pre-payments/advances with a reimbursement request.

Rec05 – May have impact by requiring the implementation of business rules that limit the number of reimbursement requests requiring approval.

Rec06 – May have impact by requiring additional process to reconcile receipts with a reimbursement request.

Rec07 – May have impact by requiring additional rules to limit number of approval levels.

Rec08 – May have impact by removing the use of per diem.

Rec09 – May have impact by requiring additional information and business rules needed to determine if in overnight status.

Rec14, Rec15, Rec17 – May have impact by requiring additional data entry.

Process payment approval

Description:
TEMS will provide the ability for agency fiscal staff to view the necessary information to process approval/denial of the payment of a reimbursement request. The system will identify and route payment requests awaiting approval. The system will identify differences from standard reimbursement rates and will enforce system and agency business rules.

ROADMAP recommendation impacts:
Rec02, Rec12 – May have impact by adding additional business rules to approval process.

Rec05 – May have impact by limiting the number of payment requests requiring approval.

Rec08 – May have impact by removing the use of per diem.

Rec07 – May have impact by requiring additional rules to limit number of approval levels.

Rec09 – May have impact by requiring additional information and business rules needed to determine if in overnight status.

Rec14, Rec15, Rec17 – May have impact by requiring additional data entry.

Process business rules

Description:
TEMS will abstract the processing of business rules to the use of a business rule engine. This will greatly minimize the impacts of any processing changes related to business rules especially from ROADMAP recommendations.

ROADMAP recommendation impacts:
Rec02, Rec05, Rec07, Rec12 – May have impact by adding additional types of business rules to be processed by business rule engine.

Process workflow

Description:
TEMS will abstract the processing of workflow/routing to the use of a workflow engine. The workflow will then been configurable by agency administrators. This will greatly minimize the impacts of any processing changes related to workflow especially from ROADMAP recommendations.

ROADMAP recommendation impacts:
Rec07 – May have impact by limiting the number of levels of approval required before processing of payment.

Process fiscal data

Description:
TEMS will provide the ability to select agency account coding data to associate with reimbursement items.

ROADMAP recommendation impacts:
Rec14, Rec15, Rec17 – May have impact by requiring additional data entry.

Reporting/querying

Description:
TEMS will provide the ability to report/query information related to pre-approval requests, reimbursement requests, workflow processing, and policy/business rule exceptions at both the individual and agency levels.

ROADMAP recommendation impacts:
Rec02, Rec04, Rec12, Rec14, Rec15 – May have impact by creating additional reporting requirements.

System help

Description:
TEMS will provide system help to application users regarding the creation of a reimbursement requests, workflow processing and

configuration, business rule processing and configuration and reporting.   The system help will be provided online and will be context sensitive.

ROADMAP recommendation impacts:
Any ROADMAP recommendation that impacts TEMS may cause parts of the system help content to be updated.

Manage agency business rules and system policies

Description:
TEMS will provide the ability to manage agency level business rules and system policies regarding pre-authorization requirements, the use of per diem, etc.

ROADMAP recommendation impacts:
Rec08 – May have impact by removing the use of per diem.

Manage agency workflow

Description:
TEMS will provide the ability to manage agency level workflow configuration.

ROADMAP recommendation impacts:
No impacts other than "principle" recommendations Rec01, Rec10 and Rec16.

Manage agency user profiles

Description:
TEMS will provide the ability to add/update/remove/transfer user profiles by agency administrators. These profiles with contain data that will impact processing of reimbursement requests for each employee.

ROADMAP recommendation impacts:
Rec05 – May have impact by creating additional data requirements for the user profile related to designating reimbursement requests requiring approval.
Rec17 – May have impact by requiring additional data associated with a travel profile for each user.

Manage account coding information

Description:

TEMS will provide the ability to manage account coding data for each agency. This will include the ability to add/update/remove account coding data.

ROADMAP recommendation impacts:
No impacts other than "principle" recommendations Rec01, Rec10 and Rec16.

Manage system and agency broadcast messages

Description:
TEMS will provide the ability to manage system and agency level broadcast messages.

ROADMAP recommendation impacts:
No impacts other than "principle" recommendations Rec01, Rec10 and Rec16.

TEMS Core Interfaces

State and agency accounting systems

Description:
TEMS will provide the ability to interface with agency accounting systems. This interface will allow agencies to import data from TEMS to their accounting system. This interface will also allow importing of an agency's accounting data into TEMS.

ROADMAP recommendation impacts:
Rec02, Rec04, Rec12 – May have impact by adding additional data requirements to export from TEMS.

State and agency HRMS

Description:
TEMS will provide the ability to interface with state agency human resource applications. The main interface will be with the Department of Personnel's HRMS. This interface will allow importing of agency personnel information necessary for creating and processing reimbursement request (e.g. employee name, work location, organizational reporting structure, etc.).

ROADMAP recommendation impacts:
Rec17 – May have impact by adding additional data requirements to import from HRMS's.

Agency storage and/or imaging systems

Description:
TEMS will provide the ability to transfer TEMS data to an agency's storage and/or imaging system.

ROADMAP recommendation impacts:
No impacts other than "principle" recommendations Rec01, Rec10 and Rec16.

TEMS Future Functions

Process pre-payment/advance request (component)

Description:
TEMS may provide the ability to create a pre-payment/advance request. The system will validate the request rates and enforce system and agency business rules. The request will be routed for approval based on configurable routing rules.

ROADMAP recommendation impacts:
Rec02, Rec03, Rec04, Rec12 – May eliminate the need for a pre-payment/advance request.
Rec14, Rec15 – May have impact by requiring additional data entry.

ROADMAP Proposed Functions and Interfaces

Process credit cards (function and interface)

Description:
TEMS may provide the ability to associate credit card transactions with specific items on a reimbursement request.

ROADMAP recommendation(s) related to proposed function and/or interface: Rec02, Rec04, Rec12, Rec13, Rec14, Rec15

Process and manage travel booking (interface)

Description:
TEMS may interface with a travel booking process to capture information regarding airlines, hotels and vehicles associated with a specific trip.

ROADMAP recommendation(s) related to proposed function and/or interface: Rec09, Rec11, Rec13, Rec14, Rec15

Process and manage receipting (function implemented via rules and procedures)

Description:
There may be rules and procedures implemented related to receipt management and processing.

ROADMAP recommendation(s) related to proposed function and/or interface: Rec06

7. Roadmap Recommendations Assessment

The TEMS Team did most of the analysis work for this deliverable in three sets of work sessions assessing the Roadmap recommendations and their impacts.

In Session Set 1 we discussed what issues, risks, assumptions, and questions come into play for each recommendation as it relates to travel and expense management functions. Our emphasis was on the recommendations and the results to the travel & expense management processes.

Session Set 2 focused on assessing each Roadmap recommendation related to its impact on the Core TEMS. We discussed what issues, risks, assumptions, and questions come into play for each recommendation as it may relate to the TEMS application. The emphasis in this assessment was on how the TEMS design and deployment may be impacted by the recommendations.

In Session Set 3 the TEMS Team considered how a high-level use case would work for each recommendation. We developed several diagrams (Appendix E) illustrating user and system actions for several of the recommendations. A number of new issues and ideas also came up and the Team reiterated many of the same concerns from the earlier sessions.

The narrative from these sessions is included in Appendix F. The narrative content is quite extensive. Its main use will be to provide the TEMS Team with information, as the various Roadmap recommendations are enabled and ready for implementation. These materials will provide the TEMS Team with issues, risks, ideas, and situation analyses that will lead into the design phase. Its value will be making the Roadmap implementation and TEMS changes easier because we have already thought through many of the upcoming issues and challenges.

Appendix A: TEMS Conceptual Approach

Travel and Expense Management System Conceptual Approach
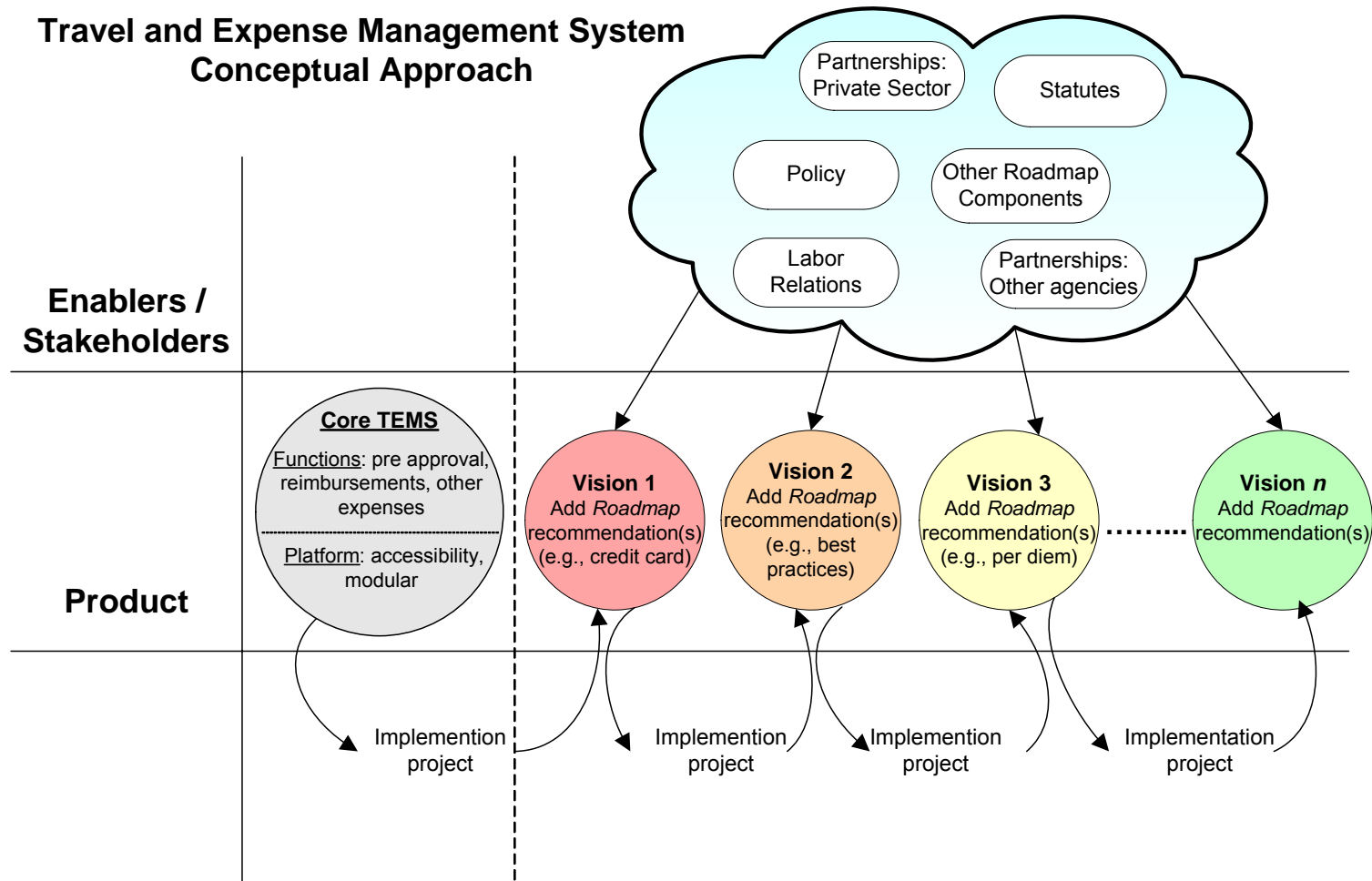
Appendix B: Roadmap Recommendations by Enablers Matrix

Roadmap Recommendations	Enablers						
	Statue	*Policy*	*Labor Relations*	*Stakeholders*	*Partnerships: Private Sector*	*Partnerships: Other Agencies*	*Other Roadmap Components*
1. Establish "best practice" business policies & processes.	X	X	X	X			
2. Require use of central individual charge cards.	X	X	X			X (AG, GA, SAO)	
3. Eliminate advances to employees.	X	X				X (AG, DIS, SAO)	
4. Offer employees the option of also carrying individual bill charge cards for meal costs.	X	X				X (AG, DIS, SAO)	
5. Select expense reimbursement vouchers for management approval based on business rules.	X	X				X (AG, DIS, SAO)	
6. Require receipts only where required by Federal tax laws.	X	X	X			X (Federal Govt.)	
7. Limit approvals to three levels.	X	X	X			X (AG, SAO)	

Roadmap Recommendations	Statue	Policy	Labor Relations	Stakeholders	Partnerships: Private Sector	Partnerships: Other Agencies	Other Roadmap Components
8. Reimburse meals at a flat 75% of per diem rate per IRS rules.	X	X	X	X		X (AG, SAO, Federal Govt.)	
9. Overnight travel status for meal reimbursement.	X	X	X			X (AG, SAO)	
10. Streamline existing processes.	X	X	X		X	X (AG, GA, DIS, SAO)	
11. Implement a centralized expense management solution.	X	X	X		X	X (AG, GA, DIS, SAO)	
12. Mandate the use of state credit cards for miscellaneous travel and other expenses.	X	X	X		X	X (AG, GA, DIS, SAO)	
13. Mandate the use of contracted vendors, where possible.	X	X	X		X	X (AG, GA, DIS, SAO)	
14. Analyze data to improve supplier management and purchasing power.	X	X			X	X (AG, GA, DIS, SAO)	
15. Improve service delivery based on data analysis.	X	X			X	X (AG, GA, DIS, SAO)	
16. Enterprise data proposals.	X	X			X	X (AG, GA, DIS, SAO)	

Roadmap Recommendations	Statue	Policy	Labor Relations	Stakeholders	Partnerships: Private Sector	Partnerships: Other Agencies	Other Roadmap Components
17. Implement a travel profile.		X	X			X (AG, SAO, DIS)	

Appendix C: Roadmap Enabling Activities/Project & the TEMS Project

Inputs to TEMS Design & Implementation

Roadmap
Recommendations

Design Considerations

OFM Draft +
Integration
Architecture
Discussions

OFM Draft +
User Group
Work Sessions

Recommendation
Enabling

Software Requirements Specification:

Technical
Requirements

Functional
Requirements
From Roadmap
Recommendations

Functional
Requirements

**Roadmap Enabling
Activity/Project**

TEMS Design &
Implementation
Activity

TEMS Project

Appendix D: Roadmap Recommendation Owner Activities

The Roadmap recommendations owner needs to work together with the enabling entities and the OFM TEMS Team
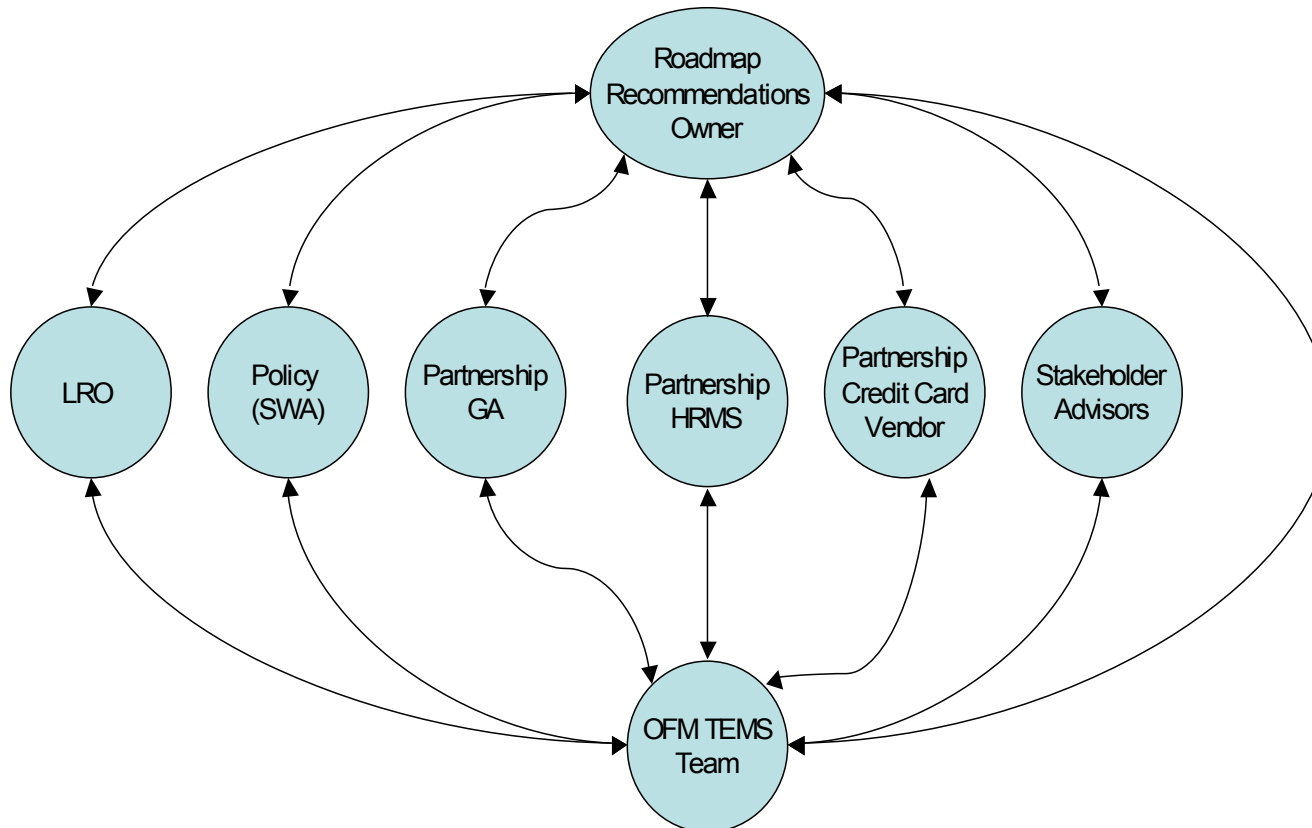
Appendix E: Recommendations Analysis Diagrams
The following three diagrams were developed during the Recommendations Analysis discussions. They show the process flow between users of the system and the system responses.

Use Case / Process Flow Discussion
Roadmap Recommendation 5
Approve Vouchers Based on Sampling

| Traveler | Reimbursement Request (by Traveler) | | Deal with denial |

| System | | Check business rules to see if voucher must go for approval | Run sampling algorithm to see if voucher must go for approval |

| Approver | | Approve or Deny? |

| Fiscal | | Approve or Deny? |
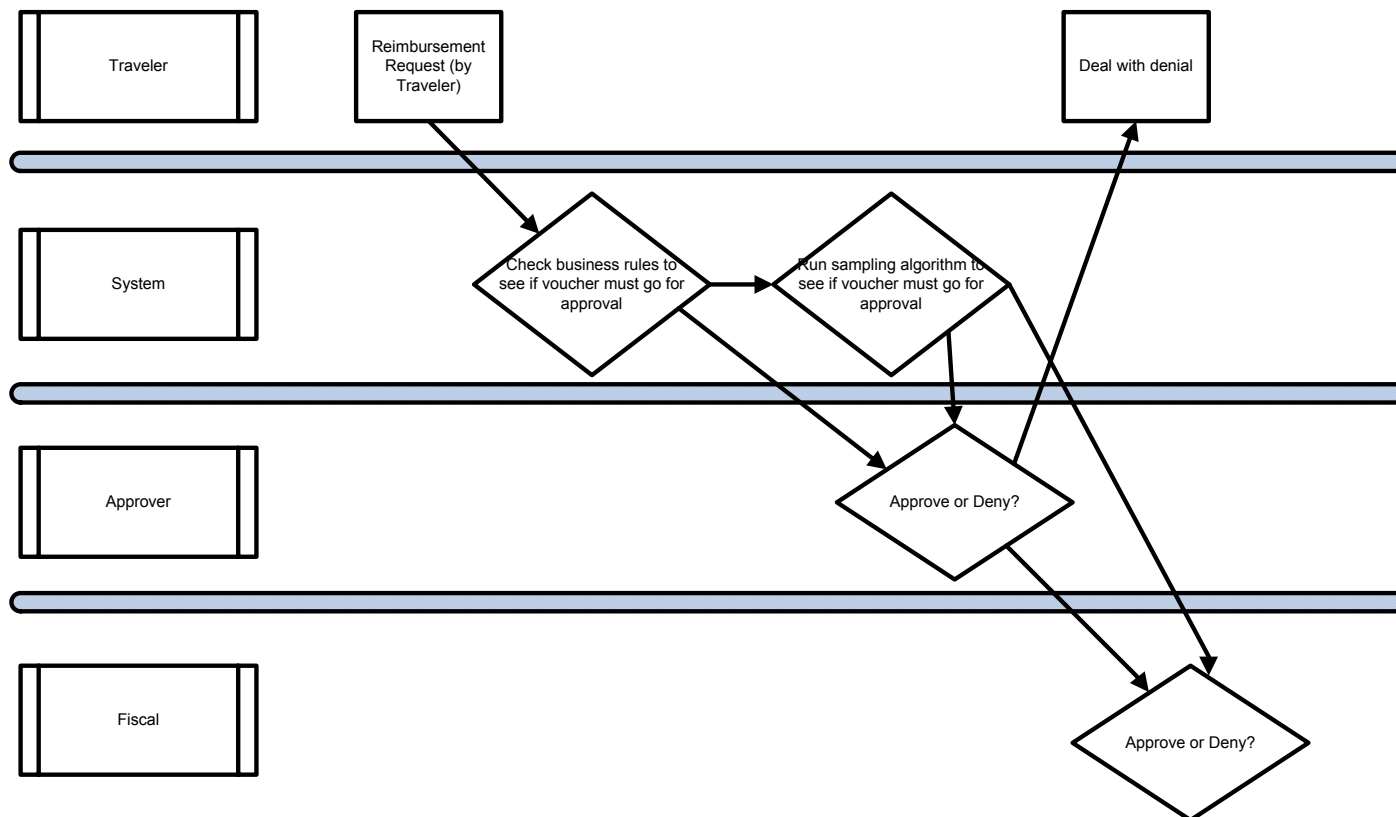
Use Case / Process Flow Discussion
Roadmap Recommendation 7
No more than 3 approvals required for payment
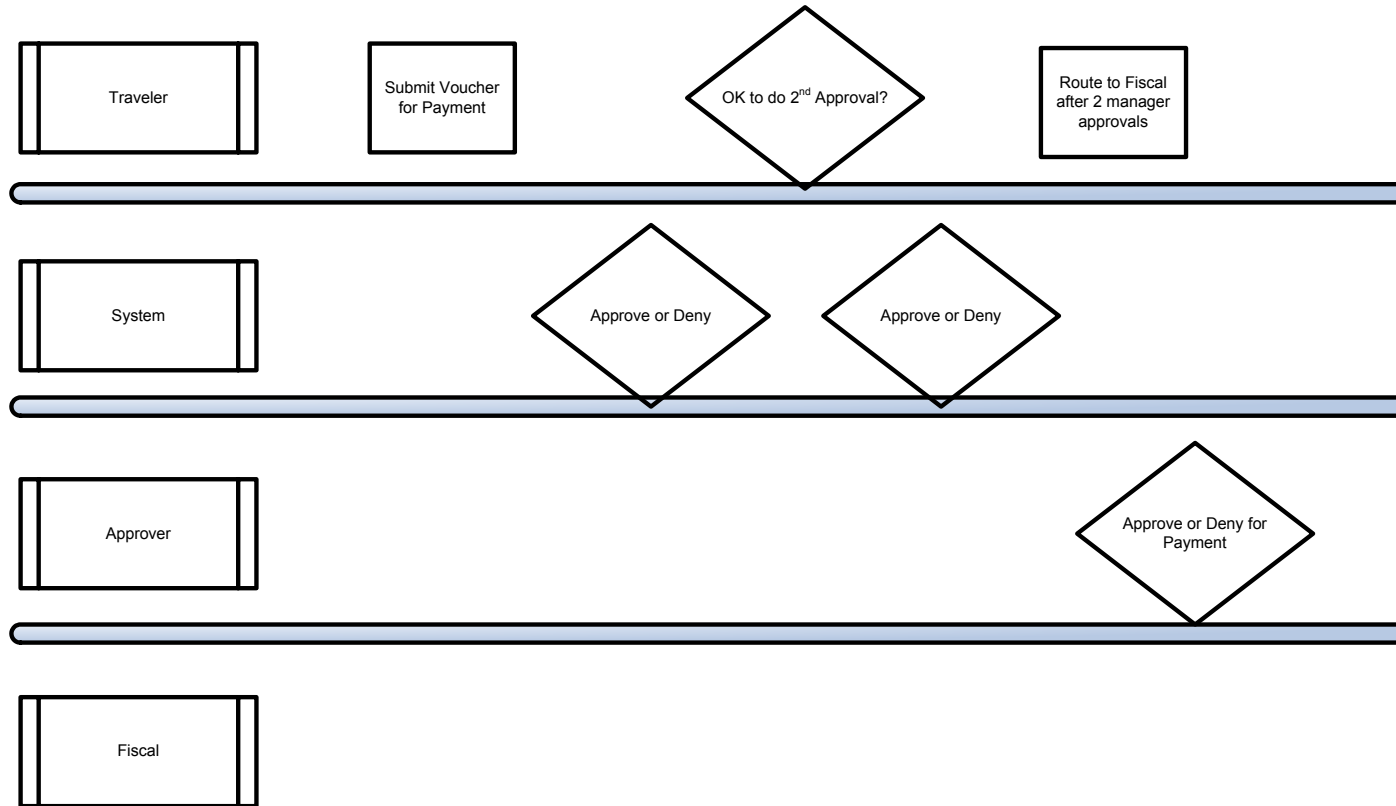
Use Case / Process Flow Discussion
Roadmap Recommendations 8 & 9
Pay 75% of per diem on first and last days of a trip
Traveler needs to be in overnight status to be eligible for meal per diem

Traveler

Provide totality of trip data: start date, end date, locations by date, and what meals were provided

System

Calculates meal reimbursement based on start & end dates, locations, and meals provided by day

Approver

Fiscal
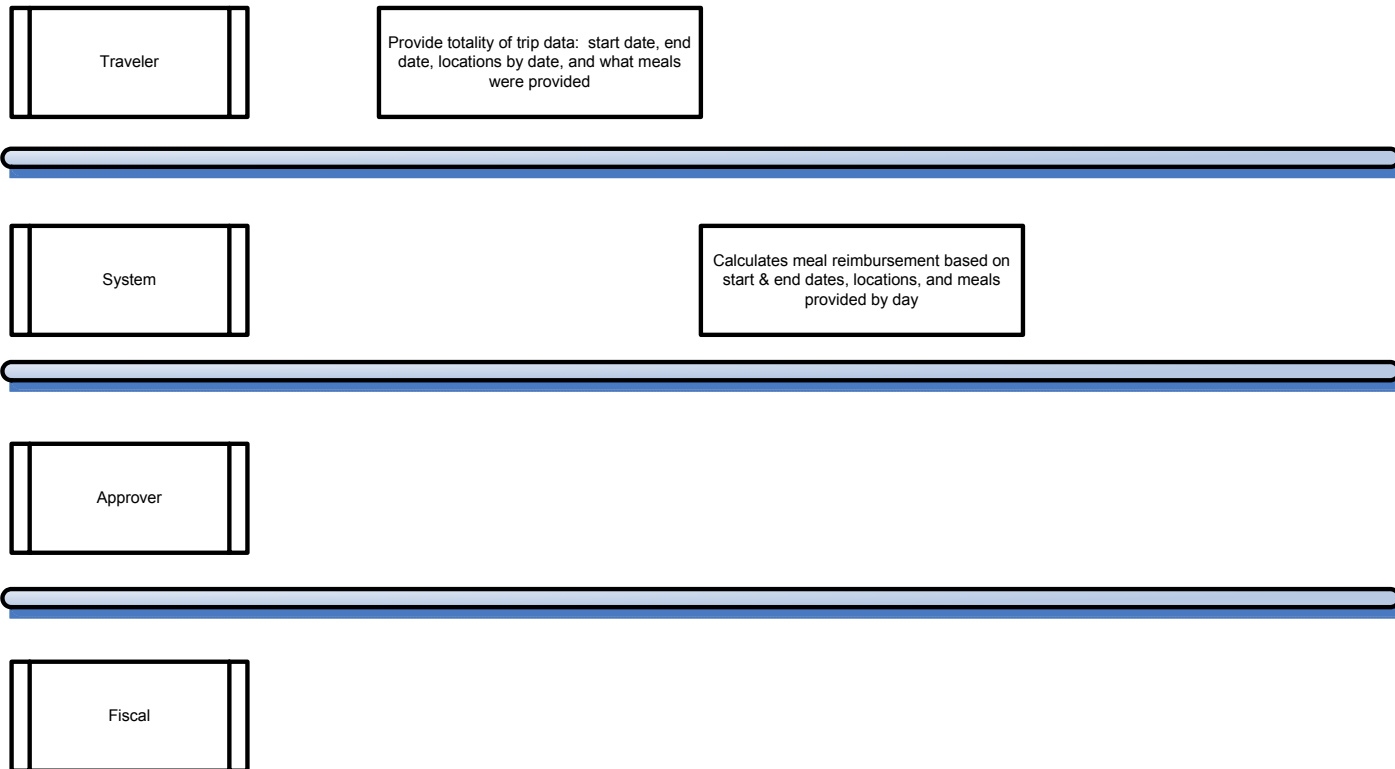
Appendix F: Work Session Details

This table contains the statements, risks, issues, ideas, questions, and assumptions that came up in the TEMS Team work sessions focused on analyzing the Roadmap recommendations. The column labeled "Session #" refers to the TEMS Session Set where that item was brought up. Session Set 1 was an assessment of each recommendation as it relates to travel and expense management functions. Session Set 2 focused on each Roadmap recommendation as it may impact the Core TEMS. In Session Set 3 the Team considered how a high-level use case or process flow would work for each recommendation.

#	Type	Description	Session #
Gen A1	Assumption	We have to address the requirements of the Core TEMS now during the next 18 months.	2
Gen A2	Assumption	The TEMS Core is a series of components. We need to be able to move these in and out.	2
Gen A3	Assumption	All the Roadmap recommendations require some enabling activity before the TEMS requirements that support the recommendation(s) can be defined.	2
Gen I1	Issue	Roadmap vision will change some of the requirements. We are not exactly sure neither which requirements nor how until the enabling process is complete.	2
Gen I2	Issue	If we do an agency-by-agency rollout, we will need an agency profile as well as an individual profile.	2
Gen I3	Issue	On Dec. 29, 2005, the TEMS Team is getting more confused as we go along. Our scope is creeping into new areas (e.g., business intelligence, procurement, reconciliation, spending authority) and we are getting lost in our analysis. We need to regain focus.	3
Gen S1	Statement	We want to design the Core TEMS to minimize the impact of the bringing in the Roadmap recommendations as they are enabled.	2

#	Type	Description	Session #
Gen S2	Statement	The agencies will probably phase in the Roadmap recommendations. We cannot assume that all the agencies will be ready to "go live" with a set of recommendations at the same time. Therefore, we need to design the rollouts as configurable by agency. Sections need to be turned off and turned on as the Roadmap recommendations rollout out. Think of it as "switches". The Roadmap recommendations will be implemented agency by agency, not all at once. Therefore, we need a phase-in approach not only recommendation by recommendation, but also agency by agency for a specific recommendation.	2
Gen S3	Statement	If a Roadmap recommendation cannot be implemented enterprise-wide, the configurations and nuances might result in huge costs to build and maintain	2
Gen S4	Statement	It would be of great benefit to have automated tools to track the recommendations throughout our project – from design to code. Then we would know specifically what to modify when a recommendation is ready for implementation.	2
Gen S5	Statement	In our assessments of the Roadmap recommendations and the Core TEMS, we are coming up with many possible specific exceptions to an enterprise solution. It can be very costly to cover all the cases and options we are coming up with. If the enterprise approach cannot be obtained, configuring the application to support all the exceptions may be prohibitive.	2
Rec01	*Roadmap Recommendation*	*Establish travel and expense reimbursement "best practice" business policies and processes at state level.*	
Rec01 I1	Issue	This recommendation is more of a principle than about specific processes. The TEMS Team has operated under this principle throughout the Feasibility Phase.	1
Rec01 I1	Issue	Recommendation not specific enough to consider for Use Case	3
Rec02	*Recommendation Analysis*	*Require use of central bill individual charge cards for most travel-related expenses, including but not limited to lodging, rental automobiles, and other miscellaneous expenses except meals.*	
Rec02 A1	Assumption	If credit cards are used, the transaction information will still be entered into TEMS.	1

#	Type	Description	Session #
Rec02 A2	Assumption	The process needs to account for all costs related to the travel or the expense.	1
Rec02 A3	Assumption	An automated expense reimbursement process will still be required. Not all expense reimbursements will come through credit cards.	1
Rec02 A4	Assumption	The state will use one credit card company for all travel and expense credit card usage.	1
Rec02 A5	Assumption	The credit card company will give us the "right" data on a timely basis.	1
Rec02 A6	Assumption	The credit card data will be detailed enough to satisfy the requirements. We will be able to identify if the line items are reimbursable expenses. There will be enough detail around each of the line items.	1
Rec02 A7	Assumption	We will be able to match the data elements from the credit card data with the data stored on the OFM application(s). There will probably need to be an intermediate interface to align the data elements and codes.	1
Rec02 A8	Assumption	TEMS will not send credit card data to the accounting / payables system. The credit card data will go directly from the credit card company to the accounting system. We will need to make sure we do not send credit card data to the accounting system.	1
Rec02 ID1	Idea	We would pass credit card data to AFRS. TEMS would update the transaction information. The credit card bill comes in to TEMS. Someone reconciles expenses. Account coding is put on the expense. Transactions are sent to the accounting system for the $$ paid to the credit card company and checks to the user for expenses not on the credit card. Check with Julie M. for more details and perhaps a graphic.	1
Rec02 I1	Issue	Does "most travel-related expenses" mean everything except meals. Are there other exceptions?	1
Rec02 I2	Issue	How to reconcile incoming credit card information with the TEMS data already on file? Could there be a date match? Could there be an amount match? Or both?	1
Rec02 I3	Issue	What happens if the incoming credit card information does not reconcile with the TEMS data already on file? What are the resolutions that need to be built into the system?	1

#	Type	Description	Session #
Rec02 I4	Issue	Is the system responsible for catching abuse or abuse potential?	1
Rec02 I5	Issue	Should the system install alerts to let someone know when items have been waiting a long time for reconciliation? What about these items that have been on hold for a long time?	1
Rec02 I6	Issue	What will the impact be on the interface from TEMS to the accounting / payables system? Will we have to sort out the data to see what needs to go over and what shouldn't? If the credit card data is also immediately loaded into the payables, then do we have to keep it out of the interface on the TEMS side?	1
Rec02 I7	Issue	The user profiles need to be kept up-to-date.	1
Rec02 I8	Issue	How to get accounting data on the TEMS voucher? If the credit card data is fed directly to the accounting system for payment, then the trip-related data needs to be married to the accounting data to support reports and management information needs. How will the information get to enterprise reporting? Can the "trip" concept and related data get carried over into AFRS? Would AFRS data and TEMS data be brought together as they are extracted for reporting? Would the credit card data come from TEMS and not be fed directly into the accounting system? How do we get the travel coding on the credit card transactions?	1
Rec02 I9	Issue	If credit card payments come in, what functions will TEMS need to do? How much of TEMS core can we eliminate? TEMS would be needed for things that are not payable by credit card (e.g., meals).	1
Rec02 I10	Issue	How do we control non-accepted use of the credit card? What should the system do to support enforcement? Should there be ticklers? What if you go over the room limit? What about someone using the wrong card? Would a payment back into the system be required if there was mistaken use and it was paid? How would this impact a statistical analysis of what payments are for?	

#	Type	Description	Session #
Rec02 I11	Issue	There is a need to keep credit card payment information and reimbursement information together and to maintain timely payments. Need to make clear TEMS' role in storing, reconciling, and reporting all travel & expense information.	1
Rec02 I13	Issue	Appendix G is a graphic representation of some possible process flows for credit card activity and some issues and discussion items around the flows.	1
Rec02 I13	Issue	Req08 (Reimbursement Request): Reconciling receipts from credit cards will require changing the TEMS Core. How will the reconciliation be done? What are the reconciliation requirements?	2
Rec02 I14	Issue	Req13 (Report / Query): How will reporting and querying be done? Where will it be done? What should go into ER? What about accessibility issues if we go with ER and their Crystal Enterprise or Ad hoc tools do not support accessibility?	2
Rec02 R1	Risk	If we pull in data from credit card records, some won't match the data we have. This may result in a need to reconcile, which is costly and time-consuming.	1
Rec02 R2	Risk	There is a risk of abuse if this recommendation is put into practice. How can the system work to mitigate or avoid abuse?	1
Rec02 R3	Risk	The need for reconciliation may require a lot of maintenance and administrative intervention.	1
Rec02 R4	Risk	There may be pushback if the labor unions see mandated credit card use as a "take away".	1
Rec02 R5	Risk	If agencies differ in their use of credit cards, there may be customizations required in the application to support the different processes.	1
Rec02 R6	Risk	What if some TEMS users will not use credit cards? Then we need to support two interfaces. One for manual input and one for credit card input.	1
Rec02 R7	Risk	If our users have more than one accounting system (e.g., like DOT or higher education), we will need to have multiple ways to feed and treat credit card data into the accounting interface.	1
Rec02 S1	Statement	Req08 (Reimbursement Request): We need to determine the interface from the credit card company to TEMS. How will we get the data? This will be a new process.	2

#	Type	Description	Session #
Rec02 S2	Statement	Req08 (Reimbursement Request): Appendix H is a graphic representation of the credit card processing flow that Ray DeFant is working on with JP Morgan Chase. If travel information comes in via this process, what is the process to link the credit card data with the travel information?	2
Rec03	***Roadmap Recommendation***	***Eliminate advances to employees.***	
Rec03 A1	Assumption	Credit cards will be used to pay major expenses, so the employees will not need advances. There will be no large out-of-the-pocket employee expenses.	1
Rec03 A2	Assumption	There is low risk for TEMS if we do not incorporate this function into the Core.	1
Rec03 A3	Assumption	Req09 (Pre-payment): Need to accommodate advances for now to keep from double billing. The current functionality just has the traveler decrease the reimbursement request by the amount of the advance.	2
Rec03 ID1	Idea	The TEMS Team needs to know the Roadmap timeframe around enabling the recommendations. Then the TEMS Team can make plans to handle new requirements coming from the Roadmap recommendations.	2
Rec03 I1	Issue	Req09 (Pre-payment): What do we include on advances in Core?	2
Rec03 I2	Issue	Req09 (Pre-payment): Need a clearer analysis about how much functionality around advances we include in the Core TEMS.	2
Rec03 I3	Issue	Req09 (Pre-payment): We need more discussion with OFM management and the User Group on how far to go regarding advances.	2
Rec03 I4	Issue	Req09 (Pre-payment): Does this refer only to travel? Are there advances for other expenses?	2
Rec03 I5	Issue	Req09 (Pre-payment): What is the timetable for eliminating advances?	2
Rec03 I6	Issue	Req09 (Pre-payment): How much can we integrate advances information into the entire current process and still be able to pull it out when they go away? Advances become entwined with the other processes by the nature of the workflow.	2

#	Type	Description	Session #
Rec03 I7	Issue	If Fiscal staff reconciles expenses on the JPMorgan site, then why would we want to reconcile again in TEMS? The TEMS reconciliation would line up with the travel request items with the credit card line transactions.	3
Rec03 I8	Issue	If we want a management information system, how much data do we combine? Do we need to get all the data grouped into "trips"? Do we need to reconcile and approve on the JPMorgan site and in TEMS to get the data together?	3
Rec03 Q1	Question	Do all the Roadmap recommendations have the same likelihood of enablement and implementation? That likelihood needs to be addressed and tracked to help the implementation teams plan and schedule their work.	2
Rec03 Q2	Question	Req09 (Pre-payment): At what point do we make a decision to fully implement advances? Do we start with a minimum of functionality around advances then at some point in the future is there a check point to know whether this recommendation is going to take place and when? The development efforts need some time-bounds around the Roadmap recommendations.	2
Rec03 R1	Risk	There will be pushback from the labor unions if eliminating travel and expense advances is seen as a "take away".	1
Rec03 S1	Statement	Req09 (Pre-payment): Current TVS shows an amount in a box. The amount of the balance to code is reduced. At a minimum we need to retain something like this current function.	2

#	Type	Description			Session #
Rec03 S2	Statement		Rec03 will happen	Rec03 will not happen	2
		TEMS Core: build full advance functionality	Spend a lot of time developing. Will need to pull out the Core advance functionality when Rec03 happens. Lot of work and cost. Risk high if we develop and pull out the function. Most expensive	Spend a lot of time developing. Long-term payoff. Moderate expense.	
		TEMS Core: does not build full advance functionality	Little work involved. Cheapest.	Spend a lot of time developing. Some redesign. Moderate+ expense	
Rec03 S3	Statement	It is getting hard for us to define what we want the system to do. The basic function of Core TEMS is to get the reimbursement done. If we are into reconciling expenses and providing business intelligence for purchasing and planning, then we have added several layers of complexity.			3
Rec03 S4	Statement	This recommendation would result in dropping some functionality that we would have implemented in the Core TEMS. No use case is necessary.			3
Rec04	***Roadmap Recommendation***	***Offer employees the option of also carrying individual bill charge cards for meal costs.***			
Rec04 A1	Assumption	TEMS would not receive electronic data from individual charge card transactions.			1
Rec04 A2	Assumption	TEMS will submit the information about reimbursement to employees who used their own individual bill charge cards to the accounting system for payment.			1
Rec04 A3	Assumption	The state will issue employees state cards to those employees who are not able or do not want to get their own cards.			1
Rec04 A4	Assumption	Individuals with individual bill cards will manually enter information about what they charged to individual cards into TEMS.			1
Rec04 A5	Assumption	The individuals will pay their own card expenses themselves.			1

#	Type	Description	Session #
Rec04 A6	Assumption	Use of individual cards will answer the need for advances for meals and other expenses that are not paid for by the central individual cards.	1
Rec04 A7	Assumption	TEMS will not attempt to collect information about vendors for meal payments.	1
Rec04 A8	Assumption	The policy will be that employees will be reimbursed for meals by a per diem rate, not for actual expenses.	1
Rec04 S1	Statement	See items for Rec02 above.	3
Rec05	***Roadmap Recommendation***	***Select expense reimbursement vouchers for management approval based on business rules.***	
Rec05 A1	Assumption	There will be a statistical sampling and a sampling based on certain criteria that will be spelled out in business rules in the policy.	1
Rec05 A2	Assumption	OFM has good testers that can check all the variations of these criteria and rules.	1
Rec05 A3	Assumption	Req12 (Manage Workflow): The system needs to make a decision who to route vouchers to. If there is no manager approval needed, then they should go directly to fiscal.	2
Rec05 A4	Assumption	The system would make routing decisions based on first the business rules regarding the specific reimbursement request (e.g., out of the country), then the random sampling algorithm (e.g., every 50th voucher).	3
Rec05 A5	Assumption	Fiscal will always be doing an approval for payment.	3
Rec05 ID1	Idea	Here are some possible criteria for requiring approval: • Over so many miles a month • Dollar limit per time period • Out of state requires approval all the time • Number of reimbursements per time period • Job class of traveler • Business unit of traveler • Individual based • Non-employees (e.g., Board members, volunteers)	1

#	Type	Description	Session #
Rec05 I1	Issue	Before we load the profile with information to support the sampling, we need to know and understand the business rules.	1
Rec05 I2	Issue	If the business rules around sampling or what vouchers must be approved change frequently, then the application must to be quite flexible and configurable to adapt to changes.	1
Rec05 I3	Issue	The rules around these criteria must meet State Auditor's Office standards. We need to understand what those standards are.	1
Rec05 I4	Issue	Will these rules vary from agency to agency? How granular do they get and on what basis (e.g., job class, business unit)?	1
Rec05 I5	Issue	What are the checks & balances and internal controls on who sets approval criteria?	1
Rec05 I6	Issue	Where will the criteria be set? At the agency or system level?	1
Rec05 I7	Issue	Will the criteria setting be done individual by individual? Will it be by bulk update? What is the maintenance load on OFM and on the agencies?	1
Rec05 I8	Issue	If the business rules around sampling or what vouchers must be approved change, there may be database changes required. These changes could be costly to implement.	1
Rec05 I9	Issue	Req12 (Manage Workflow): Will all users be treated the same? Will there need to be something in the profile that needs to include information to feed the statistical sampling routine?	2
Rec05 I10	Issue	Req12 (Manage Workflow): What are the criteria for determining whether a voucher will be in the sample or not? This should not include new data elements for the voucher that need to be added at some point in the process.	2
Rec05 I11	Issue	Req12 (Manage Workflow) & Req13 (Report / Query): What sort of logging and reporting will be required?	2
Rec05 I12	Issue	Req12 (Manage Workflow): What if an agency wants to approve all vouchers, not just a sample? Will that be allowed?	2
Rec05 I13	Issue	Req12 (Manage Workflow): Can fiscal or managers override the statistical sampling? Can this be done by specific request? By traveler? By organization unit? By various profile statuses? By whatever criteria?	2

#	Type	Description	Session #
Rec05 I14	Issue	Req12 (Manage Workflow): If sampling is used to determine whether a voucher gets reviewed for approval, will there be a central body that does approvals? Will this vary by agency?	2
Rec05 I15	Issue	If agencies can configure the business rules or sampling size around approvals, then the system will get very complicated.	3
Rec05 Q1	Question	Req12 (Manage Workflow): When a transaction is going to be reviewed will the traveler's manager review it? Will it be reviewed by a group of reviewers/approvers? Will managers do any approving at all?	2
Rec05 Q2	Question	Would the traveler be informed at the time of the reimbursement request if it would be one requiring approval or not?	3
Rec05 Q3	Question	Can the traveler override the routing controls within the system?	3
Rec05 Q4	Question	Can fiscal override the routing controls within the system and send the voucher to a manager for review and approval? Something might look fishy to fiscal.	3
Rec05 S1	Statement	The random sampling algorithm can be done in a variety of ways. 1. It might keep track of voucher counts and send every 50th voucher (or whatever sampling size you want) through the approval process. 2. It might use a random number generator and determine whether to send to approval or not based on the results of the generator. #1 above would require the system to keep a count of every voucher and make that count available real time to a voucher request.	3
Rec05 S2	Statement	The system will need to be a very smart system because the business rules could get complicated fast.	3
Rec06	*Roadmap Recommendation*	*Require receipts only where required by Federal tax laws, file receipts at decentralized locations, and standardize receipt requirements across agencies.*	
Rec06 A1	Assumption	The application will handle this similarly to how we deal with receipts now. There is only a check box that asks whether receipts were obtained.	1
Rec06 A2	Assumption	This is a decentralized approach. Therefore, we will not store receipts or receipt images in TEMS.	1

#	Type	Description	Session #
Rec06 A3	Assumption	We are going to deal with the paper receipts, not scanned images.	1
Rec06 A4	Assumption	This is a policy recommendation that does not have much system work.	1
Rec06 I1	Issue	Is there a liability if we try to interpret tax laws?	1
Rec06 I2	Issue	Req08 (Reimbursement Request): What specifically are the federal tax rules? Do we have the data elements we need to support knowing this electronically?	2
Rec06 I3	Issue	Req08 (Reimbursement Request): What are the federal tax laws around using credit cards? How will this impact the credit card feed?	2
Rec06 Q1	Question	Req08 (Reimbursement Request): Will it be sufficient just to use a check box in the application to indicate whether receipts are obtained?	2
Rec06 S1	Statement	TVS currently uses a pop-up box that is just a checklist indicating the approver has obtained the receipts. The sense of the recommendation seems to favor this approach – less work. Therefore, nothing in TEMS should add any complexity to the receipt process. The recommendation itself applies to processes that are outside the system.	3
Rec07	*Roadmap Recommendation*	*Limit approvals needed to three levels.*	
Rec07 A1	Assumption	There will be no more than three approvals required.	1
Rec07 A2	Assumption	There does not need to be anything in the system to check this. The system does not have to issue warnings if the users are about to route to a fourth level.	1
Rec07 A3	Assumption	Some individuals will not require any management approval because of their profile setting (see Rec05).	1
Rec07 A4	Assumption	There will always need to be a fiscal approval for releasing transactions to the accounting system.	1
Rec07 A5	Assumption	The 3rd approval would be fiscal approving for payment. This approval will always occur.	3

#	Type	Description	Session #
Rec07 A6	Assumption	The approvals are for the reimbursement / payment process only, not pre-approval.	3
Rec07 I1	Idea	Req12 (Manage Workflow): If we do not track this in the application, but leave it to the users to not over-approve on their own we will save on the cost to automate support for this recommendation.	2
Rec07 I2	Issue	What about overrides or exceptions?	3
Rec07 I3	Issue	Can agencies configure whether or not there is a 2nd manager approval? This can get complicated if there are agency-by-agency configuration requirements.	3
Rec07 S1	Statement	System would count approvals and automatically route the voucher to fiscal after the 2nd manager approval.	3
Rec07 S2	Statement	We could choose to do nothing in the system to support this recommendation. Let the agencies handle this without involving automation.	3
Rec08	*Roadmap Recommendation*	*Reimburse meals on first and last days of travel at a standard, flat 75% of per diem rate per IRS rules.*	
Rec08 A1	Assumption	There is a low risk for creating a technology solution to calculate the 75%.	1
Rec08 A2	Assumption	This policy will do away with the "3 hour rule" and replace it globally by a flat 75%. We will not operate under two different business rules.	1
Rec08 A3	Assumption	Req08 (Reimbursement Request): The enablers will not be in place for us to implement this in the first release.	2
Rec08 I1	Issue	The definition and implementation of a "trip" concept needs to be in place for this to work. Then the last and first day of a trip can be automatically determined.	1
Rec08 Q1	Question	Req08 (Reimbursement Request): Will Rec08 eliminate the 3-hour rule for day trips? How does this recommendation work for the total impact of the 3-hour rule? Is Rec08 completely entwined with Rec09? We need confirmation.	2
Rec08 R1	Risk	There will be pushback from the labor unions if dropping the "3 hour rule" is seen as a "take away".	1

#	Type	Description	Session #
Rec08 R2	Risk	The person entering the data can fudge it to for a more favorable reimbursement. However, this is usually the case.	1
Rec08 S1	Statement	Req08 (Reimbursement Request): This will change a lot of things. We will not need to record time any more.	2
Rec08 S2	Statement	Req08 (Reimbursement Request): Pretty good size rework to implement this.	2
Rec08 S3	Statement	Req08 (Reimbursement Request): This would be simpler to build than the current 3-hour rule.	2
Rec08 S4	Statement	Goes with Rec09 – traveler required to be in overnight travel status to be eligible for meals.	3
Rec08 S5	Statement	Need to have a clear concept of "trip". The user interface needs to make sure a "trip" is easy to distinguish.	3
Rec08 S6	Statement	The TEMS Team should incorporate the concept of trip in the Core TEMS implementation. Less training and cultural change issues later if we take care of this now.	3
Rec09	***Roadmap Recommendation***	***To be eligible for meal reimbursement the traveler must be in an overnight travel status.***	
Rec09 A1	Assumption	This recommendation requires that the concept of "trip" be implemented in the application.	1
Rec09 A2	Assumption	We should have enough information to determine travel status. Probably all we need is the start and end dates of the trip.	1
Rec09 A3	Assumption	This recommendation will supersede the 3-hour rule.	1
Rec09 A4	Assumption	This recommendation will eliminate taxable meals.	1
Rec09 ID1	Idea	If this recommendation happens and the 3-hour rule goes away, do we need to keep track of separate costs per each meal? We could probably do this anyway. If each meal is always a fixed percent of the meal per-diem, then all we really need to keep in control tables are the total meal per-diem and the percent for each meal. Need a rounding algorithm. How about conferences where lunch is covered – perhaps use the percent and local per-diem and subtract that for the lunch.	1

#	Type	Description			Session #
Rec09 I1	Issue	The rules around a trip need to be defined to determine the operational definition of "travel status". For us to automatically determine "travel status" we need to know the parameters around its definition.			1
Rec09 R1	Risk	The feds may change the rules around the 75% reimbursement and we follow them. This will require changes to how we handle this recommendation.			1
Rec09 R2	Risk	The IRS may require different tracking for taxable purposes. This will require changes to how we handle this recommendation.			1
Rec09 S1	Statement	Req08 (Reimbursement Request): Rec09 needs to go with Rec08. If Rec08 is implemented, but not Rec09, we still need the 3-hour rule for day trips.			2
Rec09 S2	Statement		3 Hour Rule built into Core TEMS logic	3 Hour Rule not in Core TEMS	2
		Rec08 does not happen	New functionality to Core TEMS.	No extra work upfront. No real impact.	
		Rec08 is implemented	Wasted work. Need to do new work and some rework.	No extra work upfront. Need to do new work and some rework.	
Rec09 S3	Statement	Goes with Rec08 – reimburse at 75%.			3
Rec09 S4	Statement	Need to have a clear concept of "trip". The user interface needs to make sure a "trip" is easy to distinguish.			3
Rec10	*Roadmap Recommendation*	*Streamline existing processes.*			
Rec10 I1	Issue	This recommendation is more of a principle than about specific processes. The TEMS Team has operated under this principle throughout the Feasibility Phase.			1
Rec10 I1	Issue	Recommendation not specific enough to consider for Use Case			3
Rec11	*Roadmap Recommendation*	*Implement a centralized expense management solution with automated trip planning and reimbursement.*			

#	Type	Description	Session #
Rec11 A1	Assumption	OFM and GA will partner for this solution.	1
Rec11 A2	Assumption	This recommendation requires that we have the concept of "trip" in place in the system.	1
Rec11 A3	Assumption	If this includes reservations, then it adds modules. We will need to partner with GA.	2
Rec11 I1	Issue	Need to track the "trip" throughout the system. Need parameters around a definition of a trip.	1
Rec11 I2	Issue	How will prior approval work with the trip planning process? At what point will the approval be required? Will there be differences in what travelers can to prior to approval (e.g., actually purchase tickets).	1
Rec11 I3	Issue	How the interaction with other products (e.g., GA's procurement system) and sites will be the trick.	2
Rec11 I4	Issue	In the step from trip planning to the actual trip, what does TEMS need to store, to report on, to reconcile, to act on in any way?	2
Rec11 Q1	Question	Req07 (Pre-approval request) & Req08 (Reimbursement Request): Is there a need to hook procurement with planning & reimbursement?	2
Rec11 Q2	Question	Is there a need to get round trips split into separate transactions? (Probably not)	2
Rec11 R1	Risk	Travel agents may change. When there are new agents there may be changes required to the system.	1
Rec11 R2	Risk	We assume the process will allow some people to plan and purchase tickets & etc. for a trip and other people to only plan, but not purchase. If this is the case, then the prices the planners-only saw during their planning and put on their approval request may not be the prices in effect upon approval and subsequent purchase.	1
Rec11 R3	Risk	What if OFM has to build something like a Travelocity application? That is a whole different line of business.	1

#	Type	Description	Session #
Rec11 S1	Statement	Req07 (Pre-approval request): The pre-authorization function is a trip planning function. We are doing this in the Core TEMS. It will not include the reservations function. TEMS is not a procurement system. To get procurement information or tie it into the workflow we will need to partner with GA.	2
Rec11 S2	Statement	A trip-planning module at this point is not specific. There are no detail requirements for us to go by. It is hard to speculate how this will work and how Core TEMS needs to be designed to accommodate it.	2
Rec11 S3	Statement	All this recommendation says is "implement a full solution".	3
Rec11 S4	Statement	The Enterprise Reporting team is heavily involved in the Common Reporting Tool Project and will not have a lot of time to help us with reporting tasks, should we require them.	3
Rec12	*Roadmap Recommendation*	*Mandate the use of state credit cards for miscellaneous travel and other expenses.*	
Rec12 A1	Assumption	This recommendation covers paying for "other expenses" through a credit card. This provides across the board coverage for use of credit cards. Rec02 covers individual corporate cards and Rec04 covers individual bill credit cards for meals.	1
Rec12 A2	Assumption	Relates to Rec02 and Rec04. The comments related to those recommendations apply here as well.	1
Rec12 I1	Issue	The enablers to make this happen are probably very difficult.	1
Rec12 S1	Statement	See items for Rec02 above.	3
Rec13	*Roadmap Recommendation*	*Mandate the use of contracted vendors, where possible.*	
Rec13 A1	Assumption	If travel planning is added, then a requirement will be to use contracted vendors.	1
Rec13 A2	Assumption	OFM will need to partner with GA if procurement processes are linked to TEMS.	1

#	Type	Description	Session #
Rec13 A3	Assumption	OFM may need to partner with vendors(s) for certain functions.	1
Rec13 A4	Assumption	We would be doing an interface with GA, other booking system(s), or new booking applications to get vendor information merged with the travel & expense details.	3
Rec13 I1	Issue	TEMS is not a procurement system. What would be involved in marrying or interfacing TEMS with the procurement processes that assures use of contracted vendors?	1
Rec13 I2	Issue	The data requirements and interface requirements may be dependent on the vendor(s) / owner(s) of the procurement applications and booking engines.	3
Rec13 Q1	Question	Do any of the travel & expense vendors provide booking and vendor-based decisions?	3
Rec13 Q2	Question	What information should go into the procurement / booking process? What information comes back?	3
Rec13 R1	Risk	If OFM partners with vendors for certain functions, the requirements around working with those vendors may change when/if the contracted vendors change. This will require rework or reconfiguration to the application.	1
Rec13 S1	Statement	Key words are "where possible".	2
Rec13 S2	Statement	Goes with Rec14.	2
Rec13 S3	Statement	GA would be the one to do this – it is in their scope of operations.	2
Rec13 S4	Statement	We would be talking about airlines, rental cars, hotels, and travel agents.	3
Rec13 S5	Statement	This functionality would come from the booking functions. General Administration has the contracts with these vendors. This is a procurement recommendation.	3
Rec13 S6	Statement	This would tie-in with the SmartBuy initiative.	3

#	Type	Description	Session #
Rec13 S7	Statement	This recommendation combines with 14 and 15	3
Rec14	***Roadmap Recommendation***	***Analyze data to improve supplier management and purchasing power.***	
Rec14 A1	Assumption	We will have the level of detail to facilitate this recommendation.	1
Rec14 A2	Assumption	GA procurement will be analyzing the data for information to help in vendor negotiations. GA is the party that will do the vendor negotiations.	1
Rec14 I1	Issue	Will the credit card bills provide the details at the level needed for this recommendation?	1
Rec14 I2	Issue	Are the vendors distinguishable in the data we receive?	1
Rec14 I3	Issue	Can we marry reimbursable & non-reimbursable information? Especially if the non-reimbursable items are fed directly into the accounting system.	1
Rec14 I4	Issue	Where are the data going to be stored? What unit will manage and support the reporting? Will it be Enterprise Reporting?	1
Rec14 I5	Issue	Will agencies want to analyze what their employees are doing? What are the agency requirements? What is the value proposition for the agency analysis needs? This could be a major effort. What is the payback?	1
Rec14 I6	Issue	Req13 (Report / Query): On reporting, how can TEMS get all the data if TEMS in the reporting source?	2
Rec14 I7	Issue	Req13 (Report / Query): If TEMS is the general data source for this data, then there needs to be a merge in TEMS and a reconciliation with AFRS / GA / etc.	2
Rec14 Q1	Question	Req13 (Report / Query): Should this information come from TEMS? Some would come from the credit card company. Are there key data elements we need to collect that we may not be collecting now?	2
Rec14 Q2	Question	Req13 (Report / Query): Is "trip" an important concept? If so, there is a need to define, code and report by trip. Value: can tell if it is overnight, out-of-state, return trip. Get total cost for trip in one place. Who really wants this? Makes it easier to see how to apply some business rules.	2

#	Type	Description	Session #
Rec14 S1	Statement	Req13 (Report / Query): GA would be the one to do this – it is in their scope of operations.	2
Rec14 S2	Statement	Req13 (Report / Query): AFRS changes and corrections are not reflected in the current TVS. AFRS is the authoritative source now.	2
Rec14 S3	Statement	Req13 (Report / Query): Authoritative source of reporting data should not be TEMS. TEMS should feed the authoritative source. Other data would come from credit cards, from the accounting system, from GA.	2
Rec14 S4	Statement	This recommendation combines with 13 and 15	3
Rec15	**Roadmap Recommendation**	**Improve service delivery based on data analysis.**	
Rec15 I1	Issue	Recommendation not specific enough at this point to consider for TEMS Conceptual Approach.	1
Rec15 I2	Issue	Req13 (Report / Query): We don't know the reporting needs or requirements that would improve service delivery.	2
Rec15 I3	Issue	Req13 (Report / Query): We don't know the data items required to meet the needs or requirements.	2
Rec15 I4	Issue	Req13 (Report / Query): We don't know where all the parts and data elements are that would support the needs or requirements – there are and will be various applications that collect or create the data.	2
Rec15 I5	Issue	Req13 (Report / Query): We don't have the data elements in one place and we don't know how to connect them – we need to understand how to merge them.	2
Rec15 I6	Issue	Req13 (Report / Query): We don't know where the reporting engine will be – will it be out of TEMS or in ER or a combination?	2
Rec15 I7	Issue	Req13 (Report / Query): We don't know if the data per trip needs to be pulled together to meet needs.	2
Rec15 S1	Statement	This recommendation combines with 13 and 14	3
Rec16	**Roadmap Recommendation**	**Enterprise data standards proposals.**	

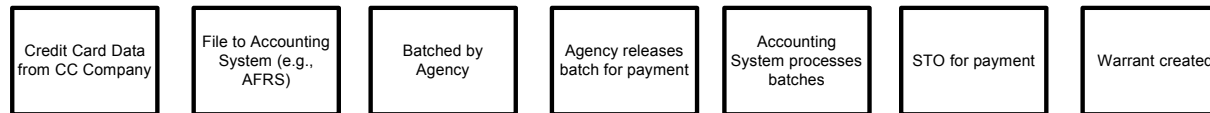| #	Type	Description	Session #
Rec16 A1	Assumption	We will have data standards, a data model, a data dictionary, and data architecture for TEMS.	1
Rec16 A2	Assumption	Our reporting requirements will impact the data model.	1
Rec16 A3	Assumption	The TEMS data work will become the enterprise data work for these functions.	1
Rec16 A4	Assumption	We do not know what the enterprise data is at this point. So, we need to implement TEMS with the understanding that the visions from the Roadmap will help guide our thoughts and work on the data.	1
Rec16 I1	Issue	What will the enterprise data model look like compared to TEMS?	1
Rec16 R1	Risk	What if enterprise data means something outside TEMS? It may result in rework or re-architecting.	1
Rec16 S1	Statement	No discussion around this recommendation. No use case derives from this recommendation.	3
Rec17	***Roadmap Recommendation***	***Implement a travel profile.***	
Rec17 A1	Assumption	The components of the employee profile on the current TVS include: work details (e.g., schedule, location), home details (e.g., location), contact information (e.g., e-mail, phone), routing, and vendor number.	1
Rec17 A2	Assumption	The future components of the employee profile that will be added during the core implementation include: accounting code defaults, bargaining unit & union data.	1
Rec17 A3	Assumption	The future components of the employee profile that may result from the Roadmap recommendations include: spending authority, dropping the work schedule information.	1
Rec17 A4	Assumption	Keep authentication & authorization separate from profile.	1
Rec17 ID1	Idea	Should the profile hold default accounting information for a traveler?	1
Rec17 ID2	Idea	Build a profiling system that allows us to add elements to it as they become necessary.	1

#	Type	Description	Session #
Rec17 ID3	Idea	Have a default profile that you can assign upon setup.	1
Rec17 ID4	Idea	We could add configurable fields for time and employee schedule. An agency could use them if they wanted. There would need to be a human evaluation of whether the 3-hour rule was met.	3
Rec17 I1	Issue	Spending authority profile and approach cannot be determined until the business rules are set around what spending can be done with approve.	1
Rec17 I2	Issue	The Core TEMS does not have enough in the SRS to support the 3-hour rule. If each agency figures the 3-hour rule differently, we would need to gain consensus on a policy. The Roadmap did not recommend implementing the 3-hour rule in the application until the 75% rule was enabled.	3
Rec17 I2	Issue	The 3-hour rule could impact the statistical sampling for approvals. Would the business rules around it require approval for all vouchers asking for the 3-hour rule?	3
Rec17 Q1	Question	What data elements will be in each profile?	2
Rec17 Q2	Question	Who maintains data elements in the profile?	2
Rec17 Q3	Question	Will there be any bulk updates to profiles? We included a requirement around getting information from HRMS on new, departing, and transferred employees. Also on chain of command – who someone's supervisor is.	2
Rec17 Q4	Question	How is the profile edited? Who will have authority to change profiles?	3
Rec17 Q5	Question	What bulk updates can be done to profiles?	3
Rec17 Q6	Question	How are profiles created?	3

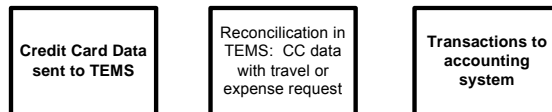| #	Type	Description	Session #
Rec17 Q7	Question	Are there elements of the spending authority that would require incrementing over time? Such as, amount of mileage requested per month or number of dollars requested per month? This type of information is probably better stored in subsidiary files rather than a central profile. If needed, where is this information made visible and who would get it?	3
Rec17 S1	Statement	There could be agency and individual profiles.	2
Rec17 S2	Statement	The profile will be separate from authentication and authorization.	2
Rec17 S3	Statement	The profile is used to let the system make decisions based on business rules and information in the profile. The business rules relate to data in the profile to determine functioning of the application.	2
Rec17 S4	Statement	Core TEMS includes the concept of a traveler profile.	3
Rec17 S5	Statement	Traveler profile components in Core TEMS include: Routing, personal information (e.g., work location), working hours, delegation, role)	3
Rec17 S6	Statement	Traveler profile components from the Roadmap recommendations not already in Core TEMS would be: spending authority data elements. This could tie in with Rec05 (approve only certain vouchers). Could tie in with credit card recommendations if you have variable spending authorities or the credit card company places limits.	3
Rec17 S7	Statement	The Rec08 and Rec09 would mean the working hours profile component would not be necessary.	3
Rec17 S8	Statement	There could be a lot to the profile updating process. Management could require a lot of time.	3
Rec17 S9	Statement	If we are going to robustly manage the 3-hour rule within the application, we need a tighter way of recording work hours in the profile. Need a time driven system to get find the 3-hour point.	3

Appendix G: Credit Card Flows & Issues

Possible Process flow(s) of Credit Card information coming in to the accounting system (and TEMS?)
December 16, 2005 discussion

Credit Card Data from CC Company	File to Accounting System (e.g., AFRS)	Batched by Agency	Agency releases batch for payment	Accounting System processes batches	STO for payment	Warrant created

The Credit Card data will have information about the vendor who provided service, dates, and type of purchase. It will not have a "trip number", nor be automatically reconcilable to a TEMS record. The Credit Card data may likely be a mix of things for travel and expense as well as goods and services purchased by the agency via credit card.

Credit Card Data sent to TEMS	Reconcilication in TEMS: CC data with travel or expense request	**Transactions to accounting system**

Who reconciles the credit card data with the travel request? Is that the traveler? Is it fiscal? What is the motivation for the traveler to reconcile - he's already paid for the service with the credit card. Risk that costs will go up because the reconciler isn't looking closely at the details – no motivation. Can we split the credit card data into "Travel & Expense" and "Other" data so the reconciliation can be done in TEMS and then move on to payment? Should TEMS hold nothing more than the line items that are not paid by credit card?

Value for reporting is expense management and information about where and how travel & expense dollars are spent. Used in negotiating better deals.

Data from accounting system (for credit card expenses)	**Make available for reporting (perhaps tied together?)**

Pre-approval: for all travel & expense detail	**Manager approves**	**Reimbursement for only non-credit card expenses**	**Data from non-credit card expenses**

Value of the pre-approval is: enforces the business rules around travel and expenses. Provides accountability and records the justification for the expenses.

Issues around the process: How do we reconcile the credit data with the pre-authorization request? Does management reporting suffer if we do not merge the credit card with TEMS? If all that we gain from the merge is the concept of "trip" is it worth it? We will have the amount of dollars spent by vendor – do we have to know how many trips led to that spending? We may not get the reporting data in a complete package – is that OK? What is the value versus the cost?

Appendix H: Credit Card Discussion with Ray DeFant

This is the process flow Ray DeFant described to the TEMS Team on Dec. 16, 2005. This is how the interface with JP Morgan will work to get agency credit card information directly into AFRS. No re-keying credit data will be necessary for the agencies.

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┌──────────────┐     ┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ JP Morgan Web│     │   Purchaser  │     │  Supervisor  │     │Fiscal Approves│
│ Site:  Credit│ ──> │ Checks/Clears│ ──> │  Reviews:    │ ──> │for Payment:  │
│     Card     │     │ Transactions │     │  Approving   │     │Applies Account│
│ Transactions │     │              │     │  Authority   │     │    Coding    │
└──────────────┘     └──────────────┘     └──────────────┘     └──────────────┘
                                                                        │
   ┌────────────────────────────────────────────────────────────────────┘
   ▼
┌──────────────┐     ┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│JP Morgan     │     │ Batch to AFRS│     │ AFRS Daily   │     │Batch Released│
│Creates a     │ ──> │ Batch Process│ ──> │ Edit Process │ ──> │in AFRS. To   │
│Batch for     │     │              │     │ (Automatic)  │     │STO & ACH for │
│Payment       │     │              │     │              │     │  Payment     │
└──────────────┘     └──────────────┘     └──────────────┘     └──────────────┘
```